


Formulation development and in-vitro in-vivo characterization of topical carbopol based aqua gel containing *Calotropis gigantea* as wound dressing

Burn wound healing is a complex and multistep process. Proper and complete healing requires adequate moisture, microbial prevention, exudates absorption, and scab formation prevention at the wound bed. Aqua-gel is a suitable carrier system that possess all above mention characteristics for burn wound healing. In this study, Carbopol 934 and polyethylene glycol based aqua-gel was designed by incorporating 2% *Calotropis gigantea* extract. Various formulations were developed and F2 was considered Optimized while it was subjected to FTIR analysis, Scanning electron microscope, HPLC content determination, rheological behaviors, invitro release & release kinetics, pH and swelling behaviours. The results demonstrated that *Calotropis gigantea* loaded aqua-gel has great potential to increase the burn wound healing rate as compared to control group.



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Biography

Dr. Barkat Ali Khan is currently working as Lecturer at Faculty of Pharmacy Gomal University D.I.Khan. He has completed his Ph.D. in Pharmaceutics from Islamia University Bahawalpur, Pakistan. He is Editor-In-Chief in Journal of Pharmaceutical and Cosmetic Sciences. He is Gold medalist in M.Phil, Session. His area of research interest focuses on pharmacokinetics of ingredient responsible for skin rejuvenation, formulation development of polyphenolic emulsions, permeability studies, and polyelectrolytes/ polyplex based nanoparticles in drug delivery technology. He is also serving as reviewer for many journals. He has 108 publications in journals contributed as author/co-author.

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